

# GEOGRAPHIC NEWS BULLETINS

*Published Weekly by*

## THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated under the Federal law as a non-commercial institution for the increase of geographic knowledge and its popular diffusion.)

General Headquarters, Washington, D. C.



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### Contents for Week of February 18, 1935. Vol. XIV. No. 1.

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  5. Zambezi Bridge Offers Nyasaland Rail Outlet to Sea.
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#### LAKEHURST IS AN ISLAND IN A SEA OF PINES

This photograph, taken from a Navy dirigible soaring above the famous aerial port, clearly reveals the rugged nature of "The Pines," a primeval wilderness of east-central New Jersey where food recently was taken to a marooned family in Arctic-rescue fashion (see Bulletin No. 3).

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#### HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic News Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers for one year upon receipt of 25 cents (in stamps or money order). Entered as second-class matter, January 27, 1922, at the Post Office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized February 9, 1922.

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### Uruguay, South America's Smallest Republic, Faces Revolt

URUGUAY, ordinarily one of the most peaceable nations in the world, has been troubled by revolutionary disturbances in recent weeks.

Uruguay has an area of only 72,153 square miles, or about that of Nebraska. But its natural wealth has been developed by the keen enterprise of its people. The Charruas, its original Indian inhabitants, were remarkably virile and advanced. Its present citizenry, largely of Spanish and Italian origin, is no less energetic.

Ranking as the world's second largest exporter of beef, and beef products, Uruguay has a considerable accumulation of wealth. In 1930, there were about seven head of cattle and twenty sheep to each inhabitant. The republic's paved roads, radiating from Montevideo, are among the best in South America. In the famous Solis Theatre at Montevideo, men, correct in kid gloves, and handsome women, attired in Paris fashions, listen to musical celebrities brought from Europe.

#### Country of Beefsteaks and Mutton Chops

Progressive to the nth degree, almost treeless Uruguay is planting thousands of trees annually. It has engaged foreign experts to aid in developing its neglected fishing industry. It even maintains a trained corps called the *Defensa Agricola*, to fight crop-menacing locusts.

It is fitting that Uruguay's coat-of-arms should bear, among other figures, a steer, for animal products form over 90 per cent of the country's exports. Uruguay's wealth dates from the time when the cattle of massacred early settlers ran wild and multiplied. Later immigrants found the free life of the open range, rounding up these cattle, more pleasing than tedious farming, made difficult by locust and other insect plagues.

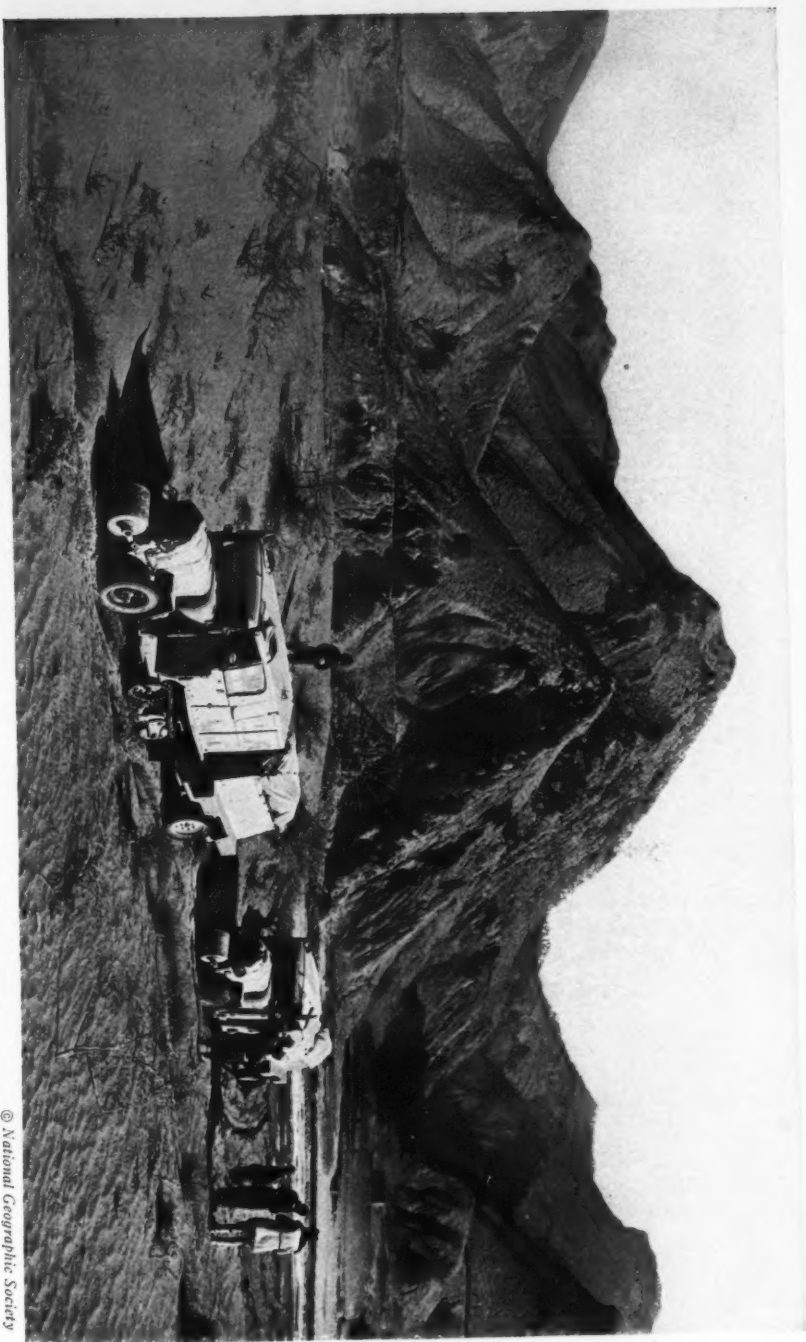
Uruguay is literally one huge pasture. Its grassy, gently rolling land provides ample forage for thousands of sheep and cattle. Small hills protect them from winds, and, because of the equable climate, few barns are needed.

#### Hides and Tallow First Sought

Live stock was once raised in an extravagant manner. For almost three hundred years, the cattle, allowed to roam at large, were hunted by "gauchos" solely for their hides and tallow. Dogs and other scavengers ate the meat, for which there was no near market. Sheep were wasted with equal recklessness. Flocks were driven to brick kilns and slaughtered for their hides. Their carcasses were burned as fuel in the kilns.

Improved roads and railroads leading to markets and the rise of the preserved beef industry led to the formation of companies dealing in salted and canned beef, beef-extract, and, finally, chilled and frozen beef. How important these exports became is shown by the fact that the four largest Uruguayan meat packing plants can each slaughter 4,000 cattle daily during the season.

Although mutton is both consumed and exported, its amount is limited by the profitable trade in wool, Uruguay's most valuable source of income. "Not quantity, but quality," might be Uruguay's motto. The country is now seeking to raise fewer and finer sheep and cattle by introducing superior breeds, chiefly from England and Argentina. Economists predict that some day, with the rise of farming, grazing will give way to grain production.



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#### SEARCHING OUT CENTRAL ASIA'S SECRETS WITH TRACTOR CARS

Months, sometimes years, of expensive preparation are necessary before an expedition can be sent into the dangerous fastnesses of western China and Sinkiang. Here two cars of the Citroën-Haardt Expedition of 1932 find heavy going in the rough country along the Yellow River in Ningxia Province, China. Note the big water-wheel across the river. It is similar to those used for irrigation in the Near East (see Bulletin No. 2).

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### Early Scrolls May Link Chinese Area with Babylon

**I**N CENTRAL ASIA, scientists agree, many "missing chapters" in the story of mankind await explorers who are courageous, or lucky, enough to escape the bandit hordes, earthquakes and pestilence that render the area less accessible to foreigners than far away Antarctica.

A cable dispatch from Lanchow, in western China, reports that hundreds of rolls of Buddhist classics, musty with age, were recently dug up in the wind-swept courtyard of a monastery that flourished more than 1,500 years ago. The scrolls, written in both Sanskrit and Chinese, mention a far away city, believed to have been Babylon.

More important, bits of pottery, strikingly similar to the earthenware used in Mesopotamia, also were found near the scrolls.

### Findings of a Geographic Expedition

The ruins of this monastery were discovered accidentally by a Taoist monk about thirty years ago. Struggling through the sand dunes of the Tung Huang district, he came upon what appeared to be a brass table top. Later digging revealed it to be the crown of a huge statue of Buddha, with the monastery and sacred caves nearby.

During its tractor-car crossing of Asia along the trail of Marco Polo in 1932, the Citroën-Haardt Expedition studied one of Central Asia's most interesting and least known ancient sites—Bäzäklük, in Sinkiang (Chinese Turkestan), a few hundred miles northwest of the scene of the recent Lanchow discoveries (see illustration, next page).

Dr. Maynard Owen Williams, National Geographic Society representative with the Citroën-Haardt Expedition, describes the experiences of an archeological group which spent more than a week studying and reproducing strange frescoes and cave temples of this hidden corner of the world.

"We spent eight busy days in the vicinity of Bäzäklük," Dr. Williams writes, "while Iacovleff, the expedition artist, with a gasoline heater keeping his color palette from freezing, copied frescoes and the rest of us shivered in dark, dusty caverns behind our motion picture and natural color cameras.

"In Bäzäklük we found that excavated grottoes bearing Uigur inscriptions had been taken over by the Buddhists, who roofed them with mud bricks, forming new arched ceilings.

### Original Fresco Badly Damaged

One fresco was evidently Manichean—an ascetic religion, founded by a Babylonian, which spread to Rome, China and India. Mani taught that light and goodness fought against darkness and evil in the souls of men.

"As copied by Iacovleff, the Manichean fresco has something of the delicacy and charm of a back drop for some graceful scene of oriental life, but the faded original was dark and badly damaged and the writing indistinct.

"How long a time elapsed between the Manichean and the Buddhist frescoes is still a mystery, as is much of Central Asia's story, but there is enough Buddhist art remaining to indicate relationships reaching far to the west and south. Chinese art seems not to have influenced the Bäzäklük frescoes.

Bulletin No. 2, February 18, 1935 (over).



### Montevideo, One of World's Finest Cities

Montevideo, Uruguay's capital, has been likened to "A giant's head on a dwarf's body," since it contains more than one-fourth of the country's population and handles 90 per cent of its exports and imports (see illustration next page). Built on a well-drained, rocky peninsula, jutting into the water where the Rio de la Plata meets the sea, Montevideo is considered one of the healthiest cities in the world. Delightful climate and near-by beaches make this commercial port also a popular seaside resort.

Montevideo's growth has been that of a prodigy. Less than fifty years ago, two-wheeled mule carts, with wheels eight feet high, bumped over its cobblestones. Wealthy residents in marble homes ate dinner in fur coats because they had no turnaces. On the beaches, mules drew bathhouses resembling "over-grown dog kennels on wheels" to the water's edge so that the occupants, though well-clothed, could enter the water without offending propriety.

Today, Montevideo is a brisk, modern city with about three hundred wide, well-paved, and splendidly lighted avenues, flanked by theatres, shops and many beautiful squares. Because one of its parks, the Prado, is said to contain eight hundred varieties of roses, Montevideo has been dubbed the "City of Roses."

Another garden embraces a famous zoo which is unique in that it contains an animal cemetery, with epitaphs and statues to monkeys, tigers and other animals.

Note: Brief additional references to Uruguay will also be found in the following: "The Greatest Voyage in the Annals of the Sea (Magellan)," *National Geographic Magazine*, December, 1932; "Skypaths Through Latin America," January, 1931; "Flying the World's Longest Air-Mail Route," March, 1930; "By Seaplane to Six Continents," September, 1928; "How Latin America Looks from the Air," October, 1926; and "Scenes in South America," October, 1921.

Bulletin No. 1, February 18, 1935.



Photograph by Capt. A. W. Stevens

#### BIG SHIPS AND LITTLE CROWD AROUND A MONTEVIDEO DOCK

Day and night the steel arms of swinging cranes fill or empty the holds of steamers from many ports. Ocean liners may now tie up in dredged basins, where once were treacherous shallows navigable only by small craft. Since 1901 Montevideo has maintained a 32-foot channel through the mud flats to the open sea.

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### "The Pines" and "The Plains," New Jersey Wildernesses

NEW JERSEY is one of the smallest and most densely populated States in the Union. Yet a family of four people was so completely marooned in the desolate pine woods of the east-central part of the State during recent heavy snow-storms that a Navy plane had to be sent from the Lakehurst Naval Air Station with food after men were unable to reach the cabin of the family afoot.

Two bales of supplies, attached to parachutes, were dropped by Navy pilots of the mercy flight, which had all the appearance of a rescue expedition in the Arctic. The next day the Arctic illusion was heightened when dog teams mushed through the frozen drifts with additional provisions on sleds.

Because most of the main railway and highway routes across New Jersey pass through heavily populated districts few people know that the State possesses two of the wildest and loneliest regions in the country, locally called "The Pines" and "The Plains."

#### Resorts Are Islands in Sea of Trees

"The Pines" is an extensive, sparsely-settled forest of rare loveliness, where the invigorating scent of yellow pitch pine has led to the building of several health resorts, chief of which is Lakewood. But the health resorts are mere islands in a sea of trees, and most of the region is a sylvan wilderness, uninhabited except for deer, small game, and an occasional family of berry pickers.

North of "The Pines" lie the fertile farms of Monmouth County; east of them are the teeming resorts of the north Jersey shore; and west, the busy manufacturing districts around Trenton and Burlington. Parts of the region have been set aside by the government as State Forests, but much of it is a tangled primeval wilderness, that remains much as it was before white men came to America.

A little farther south and a few miles inland from Barnegat Bay, along the lonely border between Ocean and Burlington Counties, New Jersey also has a strange and deserted expanse of wasteland known as "The Plains." The pine forests come to a sudden halt, as if they had been sheared off by a giant lawn mower. Then, as far as the eye can reach, stretch gently-rolling plains clothed in dwarf trees and bushes, none more than three or four feet high.

#### Beautiful in Spring and Autumn

Most of the year "The Plains" are desolate and forbidding, but in the spring, when the pink laurel is in bloom, or during the autumn, when the oak leaves turn to scarlet, the region has a compelling beauty.

An improved highway from Red Lion to Manahawkin cuts through the center of "The Plains"; yet not a house, or signboard, or fence, or telegraph pole breaks the monotony of this primitive wasteland (see illustration, next page).

Many are the legends of "The Pines" and "The Plains." Here the dread Pine Robbers of Revolutionary days, most of them fugitives from justice or deserters from Colonial and British armies, lived in safety. They made sudden forays into nearby towns, robbing and pillaging, and then returned with their booty to the fastnesses of this ideal hideout. Dogs were finally used by the authorities to search out their dens along the skimpy winding trails that twisted between charred stumps and the muck of swamps and cranberry bogs.

Note: For supplementary reading see also: "New Jersey Now!" *National Geographic Magazine*, May, 1933; "Seeing America from the Shenandoah," January, 1925; "The Wild Blueberry Tamed," June, 1916; and "The Warfare on Our Eastern Coast," September, 1915.

Bulletin No. 3, February 18, 1935.



"A celestial jazz band, a Mona Lisa smile, a bull-riding Siva, and a red-bearded 'barbarian' were clear enough to have popular interest. These blue-eyed barbarians held up their soft boots by suspenders fastened to their belts. So did the Scythians and others whose graves mark a route from Crimea, on the Black Sea, to Mongolia. Here history may not hang by a thread, but these boot-suspenders offer another clue to since-forgotten Indo-European relations and commerce with Cathay.

"Not only commerce, but art and religion, politics and wood block type (one of the rudiments of printing), moved along the age-old 'Silk Routes' between East and West, recalled to-day only by neglected ruins and 'lost' monasteries and shrines."

Note: See also "From the Mediterranean to the Yellow Sea by Motor," *National Geographic Magazine*, November, 1932; "Raft Life on the Hwang Ho," June, 1932; "First over the Roof of the World by Motor," March, 1932; "On the World's Highest Plateau," March, 1931; "Desert Road to Turkestan," June, 1929; and "By Coolie and Caravan across Central Asia," October, 1927.

See also "The Map of Asia" published as a free supplement to the December, 1933, issue of the *National Geographic Magazine*. Additional copies of this map may be obtained for 50¢ postpaid from the Washington, D. C., headquarters of the National Geographic Society.

**Bulletin No. 2, February 18, 1935.**



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#### MAN-MADE CAVES IN A DESOLATE CENTRAL ASIAN CLIFF

It seems almost incredible that so dismal a spot was a center of culture in the ninth century. Buddhist monks used this cliff face at Bāzāklīk for their beautiful temples and grottoes, and not far away ran the busy "Silk Route" for camel caravans plying between Europe and Cathay.

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### "Glacier Priest" Films Crashing Ice Cliffs in Alaska

**H**UGE slabs of ice as big as office buildings, crashing down into the water from ice cliffs as high as the Washington Monument; icebergs as large as the Capitol bobbing like corks in the sea; steaming volcanic fissures; and a weird ghost forest of trees killed and preserved by a blanket of sulphuric acid gas—these were some of the unusual things filmed by Father Bernard R. Hubbard during an expedition to Alaska last summer, according to a report submitted by the "Glacier Priest" to the National Geographic Society, which cooperated in the expedition.

Pictures of the cataracts of tumbling ice blocks were made at Hubbard Glacier, at the head of Yukatat Bay. The glacier is a vast frozen river 75 miles long, named for the first president of the National Geographic Society, Gardiner Greene Hubbard.

In September, when Father Hubbard and his party were at the glacier, the ice falls were occurring almost continually, many of them throwing the ice-flecked bay into great swells, while the noises of the tumbling masses came like sharp thunder claps.

#### A Berg That "Fell Upward"

The camera man was fortunate enough to catch one of the most unusual iceberg "shots" ever made—a berg which broke loose from the toe of the glacier far under water and "fell upward," bobbing like a huge cork and forcing its glistening summit hundreds of feet above the bay.

Father Hubbard's visit to the great ice cataracts was made on his way home. Previously his party of seven men spent several months exploring near the tip of the Alaskan Peninsula. Here, in one of the wildest and loneliest regions in the world, with every man carrying over 100 pounds of equipment on his back and dogs packing 50 pounds apiece in special knapsacks, the expedition faced a dilemma when one of the dogs gave birth to seven fuzzy pups.

"Maybe some explorers would have felt justified in bumping each of the pups on the head and going off; but, although it added to the burden and hazards of the trip, we felt that we had better take them all along," Father Hubbard reports.

The young dogs survived, and seemed to enjoy, a trip that tried the skill and endurance of hardy explorers and grown dogs, and are all alive and well to-day in Seattle. At first the pups were stowed in the knapsacks of the largest dog, but when a stream had to be crossed each member of the expedition tucked a puppy into his shirt.

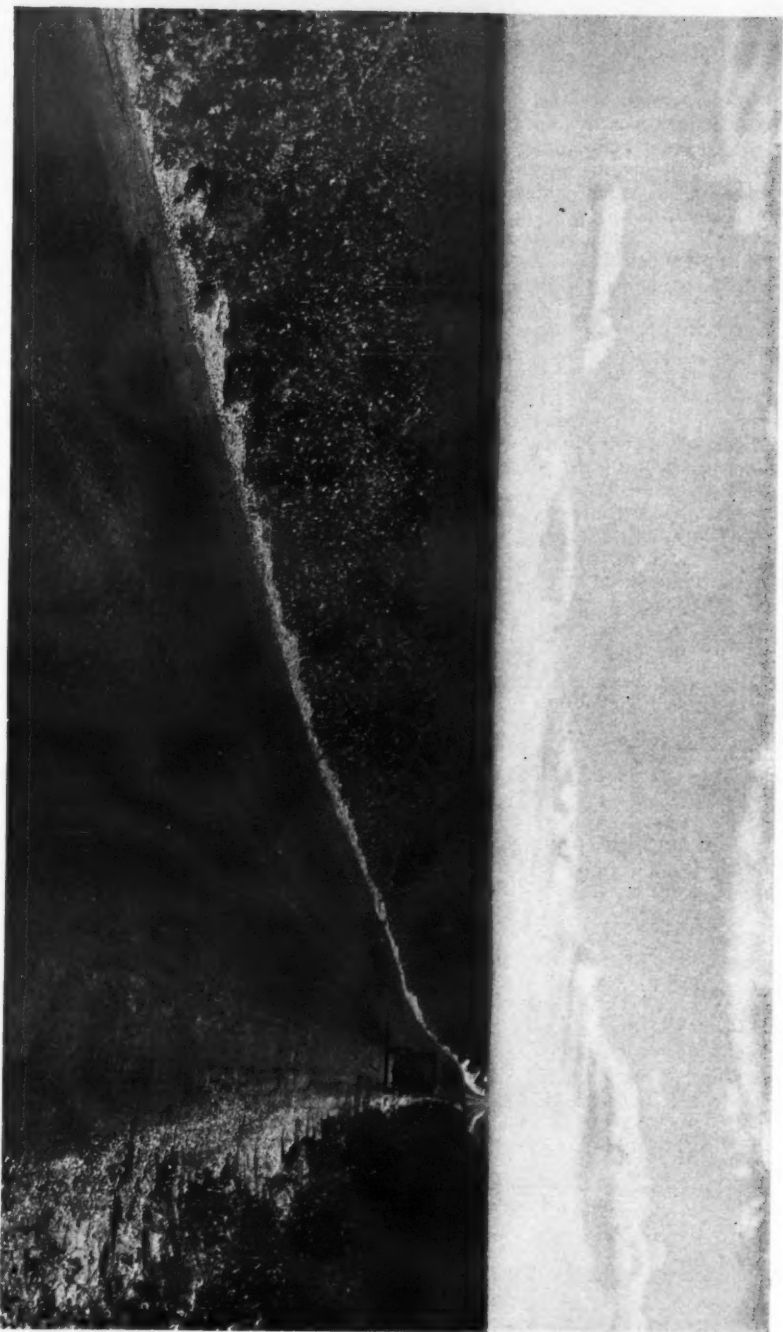
#### Moon Crater 30 Miles Around

In the Alaskan Peninsula the party trekked over difficult terrain to the Aghileen Pinnacles—queer, eroded peaks which they were the first to scale (see illustration, next page). From the top they discovered the remnants of a huge "moon crater" which Father Hubbard estimated to be 30 miles in circumference—Alaska's largest, and probably the largest in the world.

During the trip to the Aghileen Pinnacles a terrific rainstorm—18 inches in three days—ruined part of the expedition's food supply, and the men were forced to live on caribou meat for ten days. At one point they passed a huge Alaskan brown bear with triplet cubs that lumbered off over the tundra when cameras began to grind.

Rocks loosened by the lead man in climbing the sheer face of the Pinnacles

Bulletin No. 4, February 18, 1935 (over).



**THIS MIGHT BE A FLAT REGION OF THE WEST, BUT IT IS REALLY NEW JERSEY!**

A few miles inland from Barnegat Bay "The Plains," a lonely expanse of sandy soil covered with stunted oak and pine, stretches as far as the eye can reach. The vegetation is seldom higher than a man, although this desolate "prairie" is encircled by forests of normal height.

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### Zambezi Bridge Offers Nyasaland Rail Outlet to Sea

**A**NOTHER strand was added to the growing network of African railroads last month when a 33-span steel and concrete bridge across the lower Zambezi River was opened to traffic.

The new bridge, one of the longest in the world (more than two miles), cost \$10,000,000. It is the final link in a 520-mile railroad connecting Lake Nyasa, in the highlands of east-central Africa, with the seaport of Beira, Mozambique (Portuguese East Africa).

Although the bridge itself is built on Portuguese territory, between Sena and Dona Anna, it is of greatest importance to the British Protectorate of Nyasaland, which has heretofore lacked a direct outlet for its tobacco, cotton, tea, coffee, and other products.

#### Country of "Ups and Downs"

Nyasaland is a long, narrow strip of rugged plateau country sandwiched between Lake Nyasa and Northern Rhodesia, with a southern tongue extending deep into Mozambique. Although it does not loom large on the map of Africa, it has a total area of about 48,000 square miles (equal to our State of Louisiana). It is almost entirely a mountainous region of high plateaus, with a few peaks reaching to 10,000 feet.

Because Nyasaland is almost literally a country of "ups and downs" it has long been one of the least-known sections of Africa. The Livingstone Range rises abruptly from the western shore of Lake Nyasa. South of the Lake are the Shire Highlands, and, in the extreme southeast, the great mass of Mount Mlanje.

Poor roads, no navigable streams and lack of railroads have, in the past, handicapped the development of the area (see illustration, next page). Lake Nyasa, whose name means "broad waters" is Africa's third largest lake and easily navigable but it has only one outlet—the shallow Shire River. This river flows south into Mozambique, where it empties into the Zambezi. Save for a few months during the rainy season, the upper Shire is only a trickle, lost in wide marshes.

When Livingstone first pushed his way up the Zambezi, he had to abandon his launch on the banks of the lower Shire and proceed by rowboat. In September, 1859, he reached Lake Nyasa. Missionaries and traders followed the trail he blazed.

#### Ferries Long in Use over Zambezi

In 1875 the first steamer was launched on the lake. It was built at the mouth of the Zambezi, sailed up that river and part way up the Shire, then was carried overland in sections and reconstructed on the shore of Lake Nyasa.

In 1891 there were still no roads in the territory, and railway construction was even slower. But in 1908 a railway was completed between Blantyre (chief town of the southern province) and Port Herald further down the Shire. Seven years later the Central African Railway connected Port Herald, Nyasaland, with Chindio, a Portuguese town on the north bank of the Zambezi.

In 1922 the Trans-Zambezi line from Beira reached Murraça on the opposite side of the river from Chindio. Between these two stations all traffic was handled by slow flat-bottomed ferries.

fell harmlessly on the heads of followers, protected by padded football helmets, Father Hubbard's own contribution to the art and science of mountain climbing.

The explorer found what had once been a sylvan paradise in Katmai Forest had been completely destroyed by a rain of sulphuric acid during the terrific eruption of Katmai Volcano in 1912. Tall, thick-trunked trees that looked like stark ghosts had been killed, dehydrated and preserved by the chemical shower. They could be easily pushed over by one man. Once overrun with animals, the ghost forest was found to contain only toadstools and three eerie black ravens.

This phase of the expedition brought the party to the Valley of Ten Thousand Smokes, discovered by a National Geographic Society Expedition in 1916. Father Hubbard found the valley much quieter than on previous visits. Most of the "Ten Thousand Smokes" (which are really steam, not smoke) have disappeared, and only a few fumaroles and vast broken lava beds and ashes recall the explosion that gave birth to the Valley 23 years ago.

Note: See also "World inside a Mountain," *National Geographic Magazine*, September, 1931; "Mapping the Home of the Great Brown Bear," January, 1929; "The Conquest of Mount Logan," June, 1926; "Valley of Ten Thousand Smokes," September, 1921; "The Ten Thousand Smokes Now a National Monument," April, 1919; "The Valley of Ten Thousand Smokes," February, 1918; "The Valley of Ten Thousand Smokes," January, 1917; and "The Geographic Society's Alaskan Expedition," January, 1910.

**Bulletin No. 4, February 18, 1935.**



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#### THE AGHILEEN PINNACLES FLING THEIR SPIRES HEAVENWARD

From a distance this strange rocky ridge possesses somewhat the same awe-inspiring grandeur as the jagged spears of the Grand Teton National Park of Wyoming, or the pointed domes of Montserrat, the sacred mountain of Spain, or the Dolomites of northern Italy. Father Hubbard, the "Glacier Priest," and his party made the first ascent of these isolated formations in the Alaskan Peninsula last year.



The new bridge crosses the Zambezi River a few miles above Chindio, at Sena, replacing the ferries.

With lower rates and speedier transportation, Nyasaland hopes to increase her foreign trade. The country is essentially agricultural. At present the chief exports are tea and tobacco, although coffee and cotton are also grown. The climate and soil are favorable for all these crops, and the higher altitudes make living conditions pleasant for white settlers. In the river lowlands, the heat and humidity are almost intolerable.

### **Wars Hindered Development**

The early development of Nyasaland was hindered by a series of wars. For years there was conflict between English settlers and Arab slave traders, and constant trouble with the natives. In 1891, following treaties with Portugal and Germany, Nyasaland became a British Protectorate. It is ruled by a governor whose headquarters are at Zomba, in the southern province.

The population to-day numbers 2,000 Europeans, 1,500 Asiatics, and over one million black natives, who belong to the Bantu race. The country is very proud of its 1,500 miles of good roads, its many automobiles, and its regular air service, which was established in 1931. Then there is the new railway from Blantyre north to the shore of Lake Nyasa. Through trains can now carry shipments of tobacco from lake steamer to ocean freighter.

Note: For data and pictures of East Central African regions, see also "Seeing the World from the Air," *National Geographic Magazine*, March, 1928; "The Pathfinder of the East (Vasco da Gama)," November, 1927; "The World's Great Waterfalls," July, 1926; "Through the Deserts and Jungles of Africa by Motor," June, 1926; "Cairo to Cape Town, Overland," February, 1925; and "The Niagaras of Five Continents," September, 1920.

**Bulletin No. 5, February 18, 1935.**



*Photograph from Georges-Marie Haardt*

### **BREAKING TRAIL ALONG LAKE NYASA**

Even a tractor car had difficulty in traveling through Nyassaland in 1925, when the Citroën-Central Africa Expedition passed through the Protectorate en route from Algeria to Mozambique. One of the strange sights observed by this group of explorers were clouds of insects, called *kuuga*, which issued straight from larvae in the water, lived but a day, and fell again into the lake. The natives gathered them and made a paste, which, when roasted, was considered a great delicacy.



